Statement

*State-wise details of projects which have received central financial assistance from the Ministry of Non-conventional Energy Sources during the last five years i.e., 2001-02 to 2005-06 and their status**

Sl. No	State	Studies for Detailed Survey & Investigation			Studies for Detailed Project Report Preparaton			SHP projects Implementation		
		Total No	Comp-leted	In progr-ess	Total No.	Comp-leted	In progr-ess	Total No.	Comp-leted	In progr-ess
1	Arunachal Pradesh	13	7	6	—	—	—	52	11	41
2.	Assam	6	3	3	2	—	2	—	—	—
3.	Manipur	7	—	7	—	—	—	—	—	—
4.	Meghalaya	16	9	7	—	—	—	2	—	2
5.	Mizoram	20	—	20	—	—	—	1	—	1
6.	Nagaland	9	—	9	16	1	15	3	1	2
7.	Tripura	—	—	—	—	—	—	—	—	—
8.	Sikkim	10	—	10	1	1	—	4	—	4

*It takes about 1—3 years for completing a small hydro power project, depending upon site conditions and size of the project.

Energy potential of the country

3100 SHRIMATI HEMA MALINI: Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) the potential of hydel energy, bio-mass energy and wind energy in the country as on the 31st Janaury, 2006;

(b) the projects that have been started in each of energy sources during the last three years and their capacity, State-wise;

(c) whether it is a fact that 2700 megawatts of electricity can be produced from solid and liquid waste;

(d) if so, the actual progress in tapping this resource; and

(e) how much increase is projected in electricity during Tenth Five Year Plan and what is the outcome as on date?

THE MINISTER OF STATE OF THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI VILAS MUTTEMWAR): (a) The estimated medium term (2032) potential for power generation from various renewable energy sources such as wind, small hydro, solar and biomass has been estimated at around 1,83,000 MW, the details of which are given in the Statement-I. (*See* below)

(b) State-wise details of the grid-interactive renewable power generation capacity installed in the country during the last 3 years (2003-04 to 2005-06), are given in Statement-II (*see* below)

(c) and (d) The estimated near term potential from municipal solid and liquid wastes is around 2700 MW of which 46 MW has been harnessed as on 31.3.2006.

(e) As against the renewable power capacity addition target for the 10th Plan period of 3075 MW, 4650 MW has been added during the first four years of the 10th Plan period.

Statement-I

Details of estimated medium-term (2032) potential for power generation from various renewable energy sources

Sl. No.	Resource		Indicative Estimated Potential
A.	**Renewable Power:**		
1.	Bio Power (Agro Residues & Planations)	(in MW)	61,000[1]
2.	Wind Power	-do-	45,000[2]
3.	Small Hydro Power (upto 25 MW)	-do-	15,000
4.	Cogeneration-bagasse	-do-	5,000
5.	Waste to Energy	-do-	7,000
6.	Solar Power	-do-	50,000[3]
	TOTAL	(in MW)	1,83,000

MW=Megawatt

Note:—Basis for deriving the Indicative Estimated Potential:

1. from around 20mha of wastelands yielding 10MT/ha/annum of woody biomass giving 4000 k-cal-kg with system efficiency of 30% and 75% PLF. In order to realize the estimated potential a major inter-Ministerial initiative involving, among others, Agriculture, Rural Development, Panchayati Raj, Environment and Forests would be required.
2. sites with wind densities of 250 W/m^2 or higher with 3% of assessed area available for wind farms requiring 12 ha/MW. The feasible potential for grid-interactive power could be lower of sites with wind densities of 300 W/m^2 or higher are considered as suitable in keeping with international norms.
3. depending on future developments making solar technology cost competitive for grid power applications.

Statement-II

State-wise details of the total grid-interactive renewable power generation capacity installed in the country during the last three years (2003-04 to 2005-06)

Sl. No.	State/UT	Small Hydro Power	Wind Power	Biomass Power
		(MW)	(MW)	(MW)
1	2	3	4	5
1.	Andhra Pradesh	23.20	28.50	119.20
2.	Arunachal Pradesh	11.93	0.00	0.00
3.	Assam	0.11	0.00	0.00
4.	Bihar	5.50	0.00	0.00
5.	Chhattisgarh	10.00	0.00	16.50
6.	Goa	0.00	0.00	0.00
7.	Gujarat	0.00	165.06	0.00
8.	Haryana	14.40	0.00	2.00
9.	Himachal Pradesh	38.84	0.00	0.00
10.	Jammu & Kashmir	7.50	0.00	0.00
11.	Jharkhand	0.00	0.00	0.00
12.	Karnataka	140.75	460.18	115.10
13.	Kerala	12.60	0.00	0.00
14.	Madhya Pradesh	2.20	17.65	1.00
15.	Maharashtra	0.00	588.50	11.50
16.	Manipur	0.00	0.00	0.00
17.	Meghalaya	0.00	0.00	0.00
18.	Mizoram	0.00	0.00	0.00
19.	Nagaland	0.20	0.00	0.00
20.	Orissa	0.00	0.00	0.00
21.	Punjab	15.15	0.00	6.00
22.	Rajasthan	0.00	278.84	15.30
23.	Sikkim	3.00	0.00	0.00
24.	Tamil Nadu	1.30	1904.28	67.00

1	2	3	4	5
25.	Tripura	0.00	0.00	0.00
26.	Uttar Pradesh	3.60	0.00	75.00
27.	Uttaranchal	10.85	0.00	0.00
28.	West Bengal	6.02	0.00	0.00
29.	Andaman & Nicobar	0.00	0.00	0.00
30.	Chandigarh	0.00	0.00	0.00
31.	Dadra & Nagar Haveli	0.00	0.00	0.00
32.	Daman & Diu	0.00	0.00	0.00
33.	Delhi	0.00	0.00	0.00
34.	Lakshadweep	0.00	0.00	0.00
35.	Pondicherry	0.00	0.00	0.00
36.	Others	0.00	0.00	0.00
	TOTAL :	307.15	3443.00	428.60

MW=Megawatt

Formulation of National Bio-Diesel Policy

3101. SHRI C. PERUMAL: Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) whether it is proposed to formulate a National Bio-Diesel Policy;

(b) if so, the details thereof; and

(c) if not, the reasons therefor?

THE MINISTER OF STATE OF THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI VILAS MUTTEMWAR): (a) to (c) Yes, Sir. Formulation of a "National Policy on Bio-Fuels" is proposed. The details are being worked out.

Production of non-conventional energy

3102. SHRI ABU ASIM AZMI: Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) the total production of non-conventional energy in the country as on the 31st March, 2006, State-wise;

(b) the monthly consumption of this non-conventional energy, State-wise;